

Claim amendments

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An image forming apparatus having an automatic double-side unit and being capable of effecting printing on both surfaces of a paper sheet, comprising:

setting ~~means for setting~~ section which sets an adjustment mode at a time of effecting printing on both surfaces of the paper sheet;

first storage ~~means for prestorage~~ section which stores predetermined image data that is used in the adjustment mode set by the setting ~~means~~ section;

first control ~~means for executing~~ section which executes a control to form an image on a first surface of the sheet using the image data stored in the first storage ~~means~~ section, when the setting ~~means~~ section sets the adjustment mode;

first ~~measuring means for measuring~~ sensor which measures a size of the image formed on the first surface of the sheet by measuring a passage time of the predetermined image formed on the first surface of the sheet, when the image formed on the first surface of the sheet is subjected to thermal fixation and conveyed;

second control ~~means for executing~~ section which executes a control to form an image on a second surface of the sheet using the image data stored in the first storage ~~means~~ section, when the sheet is reversely fed by the automatic double-side unit;

second ~~measuring means for measuring~~ sensor which measures a size of the image formed on the second surface of the sheet by measuring a passage time of the predetermined image formed on the second surface of the sheet, when the image formed on the second surface of the sheet is subjected to thermal fixation and conveyed;

calculation ~~means for calculating~~ section which calculates correction data for a printing magnification for image formation on the second surface of the sheet, on the basis of a speed of conveyance of the paper sheet, a passage time of the predetermined image

measured by the first sensor, and a passage time of the predetermined image measured by the second sensor; and

second storage means for storing section which stores the correction data calculated by the calculation means section.

2. (Currently Amended) The image forming apparatus according to claim 1, wherein the first storage ~~means~~ prestores section stores predetermined image data including a triangular solid mark and a rectangular solid mark.

3.- 5. (Cancelled).

6. (Currently Amended) The image forming apparatus according to claim 1, wherein the calculation ~~means~~ section calculates correction data that ensures a print position and dimensional precision of the image formed on the second surface of the sheet, which thermally contracts due to thermal fixation of the image formed on the first surface of the sheet, in relation to the image formed on the first surface of the sheet, when the sheet recovers from the thermal contraction.

7. (Currently Amended) The image forming apparatus according to claim 1, wherein the calculation ~~means~~ section calculates correction data for a magnification in a main-scan direction and a magnification in a sub-scan direction.

8. (Currently Amended) The image forming apparatus according to claim 1, wherein the second storage ~~means~~ section stores correction data for a magnification in a main-scan direction and a magnification in a sub-scan direction.

9. (Currently Amended) An image forming apparatus having an automatic double-side unit and being capable of effecting printing on both surfaces of a paper sheet, comprising:

setting means for setting section which sets an adjustment mode at a time of effecting printing on both surfaces of the paper sheet;

first storage means for prestorage section which stores predetermined image data that is used in the adjustment mode set by the setting means-section;

first image forming means for forming section which forms an image on a first surface of the sheet using the image data stored in the first storage means-section, when the setting means-section sets the adjustment mode;

first measuring means for measuring sensor which measures a size of the image formed on the first surface of the sheet by measuring a passage time of the predetermined image formed on the first surface of the sheet, when the image formed on the first surface of the sheet is subjected to thermal fixation and conveyed;

second image forming means for forming section which forms an image on a second surface of the sheet using the image data stored in the first storage section, when the sheet is reversely fed by the automatic double-side unit;

second measuring means for measuring sensor which measures a size of the image formed on the second surface of the sheet by measuring a passage time of the predetermined image formed on the second surface of the sheet, when the image formed on the second surface of the sheet is subjected to thermal fixation and conveyed;

calculation means for calculating section which calculates correction data for a printing magnification for image formation on the second surface of the sheet, on the basis of a speed of conveyance of the paper sheet, a passage time of the predetermined image measured by the first sensor, and a passage time of the predetermined image measured by the second sensor;

second storage ~~means for storing~~ section which stores the correction data calculated by the calculation ~~means-section~~; and

control ~~means for executing~~ section which executes, when an image is to be formed on the second surface of the sheet in double-side printing, a control to form the image by correcting a print magnification using the correction data stored in the second storage ~~means~~ section.

10. (Currently Amended) The image forming apparatus according to claim 9, wherein the control ~~means- section~~ corrects a magnification in a main-scan direction and a magnification in a sub-scan direction using the correction data.

11. (Currently Amended) An image forming method for an image forming apparatus having an automatic double-side unit and being capable of effecting printing on both surfaces of a paper sheet, comprising:

setting an adjustment mode at a time of effecting printing on both surfaces of the paper sheet;

prestoring predetermined image data that is used in the adjustment mode;

forming an image on a first surface of the sheet using the ~~prestored~~ stored image data, when the adjustment mode is set;

measuring a size of the image formed on the first surface of the sheet by measuring a passage time of the predetermined image formed on the first surface of the sheet, when the image formed on the first surface of the sheet is subjected to thermal fixation and conveyed;

forming an image on a second surface of the sheet using the ~~prestored~~ stored image data, when the sheet is reversely fed by the automatic double-side unit;

measuring a size of the image formed on the second surface of the sheet by measuring a passage time of the predetermined image formed on the second surface of the sheet, when

the image formed on the second surface of the sheet is subjected to thermal fixation and conveyed;

calculating correction data for a printing magnification for image formation on the second surface of the sheet, on the basis of ~~a measurement result relating to the first surface of the sheet and a measurement result relating to the second surface of the sheet~~ a speed of conveyance of the paper sheet, a passage time of the predetermined image measured by the first sensor, and a passage time of the predetermined image measured by the second sensor;

storing the calculated correction data; and

executing, when an image is to be formed on the second surface of the sheet in double-side printing, a control to form the image by correcting a print magnification using the stored correction data.